



**S2 Fig.** BOLD responses from the contralateral forelimb area (S1FL) and thalamic regions during 3 Hz forepaw stimulation (0.3 ms pulses; 2 mA) in Sprague-Dawley rats. Reproducibility of S1FL and thalamic BOLD activation maps in the same subject during left paw stimulations (see Trial column; left (**A**)) as well as other subjects (see Rat column; right (**B**)). The statistical t maps were generated by comparison of the mean signals from 30 s baseline and stimulation periods. All data shown are from single trial runs. Reproducibility was quantitatively assessed across different trials using dice similarity coefficient (DSC). DSC were above 0.5 across all trials.